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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,606	03/29/2004	Mark A. Neilson	136.0140001	2825

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MINNEAPOLIS, MN 55403

EXAMINER
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BRINEY III, WALTER F

ART UNIT	PAPER NUMBER
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2615

MAIL DATE	DELIVERY MODE
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02/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/811,606

Applicant(s)

NEILSON, MARK A.

Examiner

Walter F. Briney III

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007 and 07 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07 November 2007 has been entered.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 1-4, 10 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,984,277 (8 January 1991) (herein *Bisgaard*).**

**Claim 1** is limited to a customizable cerumen guard for a hearing aid. *Bisgaard* discloses a protection element for an all-in-the-ear hearing aid. *Bisgaard* at abstract. The hearing aid protection element includes filter 3 that blocks earwax/cerumen. *Id.* at col. 4 ll. 24-33. The filter is removable so it can be cleaned or replaced. *See id.* at col. 4 ll. 55-60. Since the filter blocks earwax and is removable for cleaning or replacement, the *Bisgaard* protection element comprising filter 3 is a customizable cerumen guard for a hearing aid just as the claimed cerumen guard. Claim 1 further defines the type of hearing aid that the claimed cerumen guard is used

with. The hearing aid must have a shell, receiver, receiver tube and shell aperture communicating with the receiver tube. *Bisgaard* discloses a hearing aid 1 with a housing/shell 2 storing a transducer that communicates with the external air via sound tube 6 and an opening at the end of tube 6. *Id.* at col. 4 ll. 24-33, fig.2. Since the *Bisgaard* hearing aid 1 includes a housing 2, a transducer for generating sound, a sound conduction channel 6 and an opening at the end of the sound tube, the *Bisgaard* hearing aid is just like the claimed hearing aid that has a shell, receiver, receiver tube and shell aperture in communication with the receiver tube.

Claim 1 defines the customizable cerumen guard in terms of an insert and a plurality of customizable caps. The insert (1) is a hollow, cylindrical insert adapted to be inserted into the shell aperture; (2) the insert has an inside surface defining a chamber adapted to directly receive a cerumen-trapping accessory; (3) the insert has an ear canal aperture adapted to communicate with the ear of a wearer, where the insert includes a surface surrounding the ear canal aperture defining a ridge; and (4) the receiver aperture is adapted to communicate with the receiver tube.

At the end of tube 6, *Bisgaard* connects the protection element comprising sound tube 5 and filter 3. *Id.* at fig.2. Sound tube 5 is axis symmetric, so the cross-sectional view of tube 5 in fig.2 represents all possible cross-sections. *Id.* at col. 40-41. Fig.2 depicts that tube 5 is hollow and inserted into the shell aperture at the end of sound conduction channel 6. Since the tube 5 of *Bisgaard* is inserted into the aperture of housing 2, is hollow and is axis-symmetric, tube 5 corresponds to the first set of insert limitations, to wit, the insert is inserted into a shell aperture, is hollow and is cylindrical.

The tube 5 has an inside surface that continues along the axis defined by the sound conduction channel 6. *Id.* at fig.2. Visual inspection of *Bisgaard* tube 5 and applicant's insert

110 reveals that the tube and insert are substantially similar since they are both cylindrical and hollow. *Compare Bisgaard* at fig.2 with Drawings at fig.3 (29 March 2004). The insert 110 appears to be adapted to receive cerumen-trapping accessories by virtue of the insert's cylindrical and hollow nature. Since tube 5 and insert 110 are substantially similar in the same features that apparently allow for reception of cerumen-trapping accessories, tube 5 corresponds to the second set of insert limitations, to wit, the insert has an inside surface defining a chamber adapted to directly receive a cerumen-trapping accessory.

Tube 5 is open to the ambient air at the shell's distal end that enters the hearing aid wearer's ear as evidenced by the use of filter 3 to block earwax from entering into tube 5. *Bisgaard* at col. 4 ll. 24-33, fig.2. The tube 5 has a flange 8 that appears identical by visual inspection to the ridge at the tip of applicant's insert 110. *Id.* at col. 4 ll. 43-49; *compare id.* at fig. 2 with Drawings at fig.4A. Since tube 5 is open to the air at the tube's distal end, is inserted into the hearing aid wearer's ear and has a flange 8, the tube 5 corresponds to the third set of insert limitations, to wit, aperture adapted to communicate with the ear of a wearer, where the insert includes a surface surrounding the ear canal aperture defining a ridge.

Tube 5 is clearly communicatively coupled to sound conducting channel 6 so air can pass from the channel to the tube. *Bisgaard* at fig.2. Since tube 5 communicates with the channel 6 and channel 6 corresponds to the claimed receiver tube, tube 5 corresponds to the fourth set of insert limitations. Because tube 5 corresponds to all four identified sets of insert limitations, tube 5 corresponds to the claimed insert.

Claim 1 finally requires (1) a plurality of (2) customizable (3) caps each having an inner-cap surface to engage the ridge of the insert to releasably attach one of the customizable caps to

the insert. *Bisgaard* discloses that filter 3 fits over and, thus, caps tube 5. *Id.* at fig.2. The inner surface of filter 3 is snapped down over the flange 7 and is also releasable from its attachment to tube 5. *Id.* at col. 4 ll. 49-60, fig.2. Since filter 3 caps tube 5, the inner surface of the filter 3 snaps over the flange 8, the filter is releasable from tube 5 and insert 5 corresponds to the claimed insert, filter 3 corresponds to the claimed cap that is also a cap with an inner-cap surface to engage the ridge of an insert and is releasably attached to the insert. Since the *Bisgaard* filters are replaceable, *Bisgaard* discloses a plurality of caps. *Id.* at col. 2 ll. 58-68. The *Bisgaard* caps appear to have hollow space just as the caps depicted by applicant, and the hollow space is used by applicant to customize the guards; accordingly, the *Bisgaard* caps are customizable.

*Compare id.* at fig.2 with Drawings at fig.5C. Therefore, *Bisgaard* anticipates all limitations of the claim.

**Claim 2** is limited to the customizable cerumen guard of claim 1. This claim requires that the insert be permanently mounted in the shell aperture. *Bisgaard* tube 5 is held in place against the shell 2 by adhesive. *Bisgaard* at col. 4 ll. 40-43. Claim 3 requires that the insert be held in place with adhesive so adhesive is evidently within the intended scope of this claim from which claim 3 immediately depends. So, *Bisgaard* discloses permanently mounting tube 5 in the shell 2 because *Bisgaard* uses adhesive and the applicant discloses that adhesive is a permanent mounting means. Because tube 5 corresponds to the claimed insert, tube 5 is inserted in an aperture of housing 2 and the aperture of housing 2 corresponds to the claimed shell aperture, *Bisgaard* discloses permanently mounting an insert in a shell aperture. Claim 1 *supra*. Therefore, *Bisgaard* anticipates all limitations of the claim.

**Claim 3** is limited to the customizable cerumen guard of claim 1. As noted in claim 2 *supra*, the tube 5 is held in an aperture of housing 2 by adhesive, and since the tube corresponds to the claimed insert and the housing aperture corresponds to the shell aperture, *Bisgaard* discloses mounting an insert in a shell aperture with adhesive as claimed. Therefore, *Bisgaard* anticipates all limitations of the claim.

**Claim 4** is limited to the customizable cerumen guard of claim 1. Whether tube 5 was screwed into the shell aperture before tube 5 was adhered in place is not necessarily limiting on the structure of either the housing 2 or tube 5, but rather a limitation on the manner of assembly. One could have screwed tube 5 into place within housing 2 for no reason or because the shell aperture was a little tight for tube 5, and tube 5 had to be screwed in. Therefore, *Bisgaard* anticipates all limitations of the claim.

**Claim 10** is limited to a customizable cerumen guard for a hearing aid. This claim is identical in scope with the concatenation claims 1-3 and is rejected for the same reasons. Claims 1-3 *supra*. Therefore, *Bisgaard* anticipates all limitations of the claim.

**Claim 16** is limited to a customizable cerumen guard for a hearing aid. This claim is identical in scope with the concatenation claims 1-2 and 4 and is rejected for the same reasons. Claims 1-2, 4 *supra*. Therefore, *Bisgaard* anticipates all limitations of the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 6, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Bisgaard* in view of US Patent 5,278,360 (11 January 1994) (herein *Carbe*).**

**Claim 6** is limited to the customizable cerumen guard of claim 1. This claim defines the cerumen-trapping accessories that *could* be used in the insert. *Bisgaard* does not disclose any cerumen-trapping accessories, however, the claim language broadly construed does not actually require any such disclosure. Claim 1 simply requires that the insert is adapted to directly receive cerumen-trapping accessories, but cerumen-trapping accessories are never positively claimed as elements of the cerumen guard. Claim 6 likewise makes no requirement for accessories, but does define types that could be used. Notwithstanding the lack of a requirement for accessories, *Carbe* teaches that using cerumen-trapping accessories inside an insert is obvious. *Carbe* teaches an insert 14 with a chamber 46 that holds a filter 70/72. *Carbe* at col. 3 ll. 37-45, figs.1, 7a & 7b. *Carbe* teaches that the filters have attendant advantages: attenuate undesired high frequencies and obstruct the movement of wax through chamber 46. *Id.* Thus, one of ordinary skill in the art would have found inserting *Carbe* filter 70/72 into *Bisgaard* tube 5 obvious at the time of the invention since the attendant advantages of the *Carbe* filter 70/72 would have motivated one of ordinary skill in the art to improve the hearing aid of *Bisgaard*. Therefore, *Bisgaard* in view of *Carbe* makes obvious all limitations of the claim.

**Claim 12** is limited to the customizable cerumen guard of claim 11 (presumably applicant intended claim 10). This claim is identical in scope with the concatenation of claims 1-



3 and 6 and is rejected for the same reasons. Claims 1-3 and 6 *supra*. Therefore, *Bisgaard* in view of *Carbe* makes obvious all limitations of the claim.

**Claim 17** is limited to the customizable cerumen guard of claim 16. Claim 17 is identical in scope with the concatenation of claims 1-3 and 6 and is rejected for the same reasons. Claims 1-3 and 6 *supra*. Therefore, *Bisgaard* in view of *Haertl* makes obvious all limitations of the claim.

3. **Claims 7, 9, 13, 15, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Bisgaard* in view of US Patent 4,987,597 (22 January 1991) (herein *Haertl*).**

**Claim 7** is limited to the customizable cerumen guard of claim 1. The filter 3 of *Bisgaard* has peripheral openings, but not a mesh as claimed. *Bisgaard* at fig.2. However, *Haertl* teaches an apparatus for closing openings of a hearing aid or an ear adaptor for hearing aids. *Haertl* at Abstract. Several caps with a mesh-like openings are depicted in figs.11-13. *Haertl* makes no representations about advantages attendant to any of the caps. *Haertl* at col. 3 ll. 54 through col. 4 l.25. Both the *Bisgaard* filter 3 and the *Haertl* caps are used for the same purpose since they are designed to block earwax from entering into a hearing aid. *Bisgaard* at col. 4 ll. 30-33; *Haertl* at col. 1 ll. 30-35, col. 3 ll. 11-15. One of ordinary skill in the art would have found replacing *Bisgaard* filter 3 with one of the *Haertl* caps obvious at the time of the invention since the replacement is merely the substitution of equivalents in the art known to be used for blocking earwax by capping a sound tube. Therefore, *Bisgaard* in view of *Haertl* makes obvious all limitations of the claim.

**Claim 9** is limited to the customizable cerumen guard of claim 1. The filter 3 of *Bisgaard* has peripheral openings, but not a central opening and a plurality of peripheral openings as claimed. *Bisgaard* at fig.2. However, *Haertl* teaches an apparatus for closing openings of a hearing aid or an ear adaptor for hearing aids. *Haertl* at Abstract. Several caps with a central opening and a plurality of peripheral openings are depicted in figs.11-13. *Haertl* makes no representations about advantages attendant to any of the caps. *Haertl* at col. 3 ll. 54 through col. 4 l.25. Both the *Bisgaard* filter 3 and the *Haertl* caps are used for the same purpose since they are designed to block earwax from entering into a hearing aid. *Bisgaard* at col. 4 ll. 30-33; *Haertl* at col. 1 ll. 30-35, col. 3 ll. 11-15. One of ordinary skill in the art would have found replacing *Bisgaard* filter 3 with one of the *Haertl* caps obvious at the time of the invention since the replacement is merely the substitution of equivalents in the art known to be used for blocking earwax by capping a sound tube. Therefore, *Bisgaard* in view of *Haertl* makes obvious all limitations of the claim.

**Claims 13 and 15** are limited to the customizable cerumen guard of claim 10. Claim 13 is identical in scope with the concatenation of claims 1-3 and 7 and is rejected for the same reasons. Claims 1-3 and 7 *supra*. Claim 15 is identical in scope with the concatenation of claims 1-3 and 9 and is rejected for the same reasons Claims 1-3 and 9 *supra*. Therefore, *Bisgaard* in view of *Haertl* makes obvious all limitations of the claim.

**Claims 18 and 20** are limited to the customizable cerumen guard of claim 16. Claim 18 is identical in scope with the concatenation of claims 1-3 and 7 and is rejected for the same reasons. Claims 1-3 and 7 *supra*. Claim 20 is identical in scope with the concatenation of claims

1-3 and 9 and is rejected for the same reasons Claims 1-3 and 9 *supra*. Therefore, *Bisgaard* in view of *Haertl* makes obvious all limitations of the claim.

**4. Claims 8, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Bisgaard* in view of *Haertl* and further in view of *Carbe*.**

**Claim 8** is limited to “the customizable cerumen guard of claim 7,” as covered by *Bisgaard* in view of *Haertl*. Using *Carbe* filters 70, or 72, with the *Bisgaard* hearing aid is obvious. Claim 6 *supra*. Filter 70 fits into chamber 46 that corresponds to the inner volume defined by *Bisgaard* tube 5. Since tube 5 is narrower than cap 3, since cap 3 has to fit over tube 5, filter 70 will fit into cap 3. So the cerumen-spreading filter 70 of *Carbe* is insertable into the chamber space defined by *Bisgaard* cap 3. Therefore, *Bisgaard* in view of *Haertl* and further in view of *Carbe* makes obvious all limitations of the claim.

**Claim 14** is limited to the customizable cerumen guard of claim 10. Claim 13 is identical in scope with the concatenation of claims 1-3 and 8 and is rejected for the same reasons. Claims 1-3 and 8 *supra*. Therefore, *Bisgaard* in view of *Haertl* and further in view of *Carbe* makes obvious all limitations of the claim.

**Claim 19** is limited to the customizable cerumen guard of claim 16. Claim 19 is identical in scope with the concatenation of claims 1-3 and 8 and is rejected for the same reasons. Claims 1-3 and 8 *supra*. Therefore, *Bisgaard* in view of *Haertl* and further in view of *Carbe* makes obvious all limitations of the claim.

***Response to Arguments***

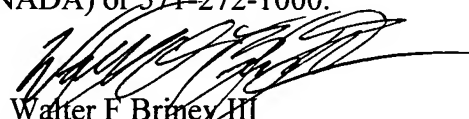
Applicant's arguments with respect to claims 1-4, 6-10 and 12-20 have been considered but are moot in view of the new ground(s) of rejection since the applicant's arguments fail to address the *Bisgaard* reference, which reference discloses the claimed ridge at issue in applicant's arguments.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Walter F Briney III  
Examiner

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